IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. Of:	CORONADO
Serial Number:	10/719,488
Filed:	November 20, 2003
For:	APPARATUS AND METHOD TO CONTROL ACCESS . . .
Group:	2186
Examiner:	RYAN A. DARE DOCKET: TUC920030138US1

BOX 16
Director of the US Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

REQUEST FOR REFUND

Dear Sir:

Applicants submitted Amendment B via the Web Enabled Patent Filing System on or about September 5, 2006. Applicants inadvertently charged $1,200.00 to Deposit Account No. 090449 for payment of six (6) additional independent claims. The submitted Amendment B does not reflect those additional independent claims. Attached hereto please find a copy of Amendment B for your reference. In addition, attached hereto is a copy of the Electronic Acknowledgment Receipt which recites RAM confirm number 862.

LAW OFFICE OF
DALE F. REGELMAN, P.C.
4231 S. Fremont Street
Tucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

Therefore, Applicants request a refund with respect to the charge of $1,200.00. Please credit Deposit Account No. 090449 in the amount of $1,200.00.

Respectfully submitted,

Dale F. Regelman, Ph.D.
Attorney for Applicants
Reg. No. 45,625

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: BOX 16, Director of the US Patent and Trademark Office, P.O. Box 1450, Alexandria, Virginia 22313-1450 on November 16, 2006 at Tucson, Arizona.

By:

LAW OFFICE OF
DALE F. REGELMAN, P.C.
4231 S. Fremont Street
Tucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. Of:	CORONADO	)
Serial Number:	10/719,488	)
Filed:	November 20, 2003	)
For:	APPARATUS AND METHOD TO CONTROL ACCESS . . .	)
Group:	2186	)
Examiner:	RYAN A. DARE	DOCKET: TUC920030138US1)

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

AMENDMENT B

Dear Sir:

This Amendment B is being filed in response to the Office Action mailed June 5, 2006.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks begin on page 12 of this paper.

LAW OFFICE OF
DALE F. REGELMAN, P.C.
4231 S. Fremont Street
Tucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A method to control access to logical volumes disposed in an information storage and retrieval system, comprising the steps of:

providing an information storage and retrieval system comprising a plurality of logical volumes;

providing a plurality of host computers, wherein each of said plurality of host computers is capable of communicating with said information storage and retrieval system;

forming (N) host computer groups, wherein (N) is greater than or equal to 1;

assigning ~~one or more~~ each of said plurality of host computers to ~~the (i)th host computer group, wherein (i) is greater than or equal to 1 and less than or equal to (N)~~ one of the (N) host computer groups;

forming (N) logical volume groups;

assigning one or more of said plurality of logical volumes to the (i)th logical volume group, wherein (i) is greater than or equal to 1 and less than or equal to (N);

maintaining a database associating the (i)th host computer group with the (i)th logical volume group;

permitting each of said one or more host computers assigned to the (i)th host computer group to access each logical volume comprising said (i)th logical volume group;

wherein each of said plurality of host computers assigned to (i)th host computer group

LAW OFFICE OF
'ALE F. REGELMAN, P.C.
1231 S. Fremont Street
Tucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

is not assigned to any other of the (N) host computer groups, and wherein each of said logical volumes assigned to the (i)th logical volume group is not assigned to any other of the (N) logical volume groups.

2. (original) The method of claim 1, wherein one or more of said (N) host computer groups are owned by a first person, and wherein one or more of said (N) host computer groups are owned by a second person, wherein said first person differs from said second person.

3. (original) The method of claim 1, further comprising the step of providing a storage area network, wherein said storage area network is capable of communicating with said information storage and retrieval system and with each of said plurality of host computers.

4. (original) The method of claim 1, further comprising the steps of:

forming a plurality of unique identifiers;

assigning a different one of said plurality of unique identifiers to each of said plurality of host computers;

associating in said database each of said plurality of unique identifiers with one of said (N) host computer groups.

5. (original) The method of claim 4, further comprising the steps of:

requesting by one of said plurality of host computers to access a designated logical volume;

determining that said requesting host computer is assigned to the (j)th host computer group, wherein (j) is greater than or equal to 1 and less than or equal to (N);

determining if said designated logical volume is assigned to the (j)th logical volume group;

LAW OFFICE OF
)ALE F. REGELMAN, P.C.
4231 S. Fremont Street
Tucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

operative if said designated logical volume is assigned to the (j)th logical volume group, permitting said requesting host to access said designated volume;

operative if said designated logical volume is not assigned to the (j)th logical volume group, denying said requesting host access to said designated volume.

6. (original) The method of claim 5, further comprising the steps of:

establishing the unique identifier assigned to said requesting host computer;

determining that the requesting host computer is assigned to the (j)th logical volume group.

7. (original) The method of claim 1, further comprising the steps of:

receiving a request to assign one or more host computers to the (k)th logical volume group, wherein (k) is greater than or equal to 1 and less than or equal to (N);

assigning said one or more host computers to the (k)th logical volume group.

8. (original) The method of claim 1, further comprising the steps of:

receiving a request to unassign one or more host computers from the (k)th logical volume group, wherein (k) is greater than or equal to 1 and less than or equal to (N);

unassigning said one or more host computers to the (k)th logical volume group.

9. (original) The method of claim 1, further comprising the steps of:

receiving a request to unassign one or more logical volumes from the (k)th logical volume group, wherein (k) is greater than or equal to 1 and less than or equal to (N);

unassigning said one or more logical volumes from the (k)th logical volume group.

10. (original) The method of claim 1, further comprising the steps of:

receiving a request to assign one or more logical volumes to the (k)th logical volume

LAW OFFICE OF
ALE F. REGELMAN, P.C.
1231 S. Fremont Street
Tucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

group, wherein (k) is greater than or equal to 1 and less than or equal to (N);

assigning said one or more logical volumes to the (k)th logical volume group;

assigning identifiers to said one or more logical volumes newly-assigned to the (k)th logical volume group.

11. (currently amended) An article of manufacture comprising a computer useable medium having computer readable program code disposed therein to control access to logical volumes disposed in an information storage and retrieval system, wherein said information storage and retrieval system comprises a plurality of logical volumes, and wherein a plurality of host computers is capable of communicating with said information storage and retrieval system, the computer readable program code comprising a series of computer readable program steps to effect:

forming (N) host computer groups, wherein (N) is greater than or equal to 1;

assigning ~~one or more~~ each of said plurality of host computers to ~~the (i)th host computer group, wherein (i) is greater than or equal to 1 and less than or equal to (N)~~ one of the (N) host computer groups;

forming (N) logical volume groups;

assigning one or more of said plurality of logical volumes to the (i)th logical volume group, wherein (i) is greater than or equal to 1 and less than or equal to (N);

maintaining a database associating the (i)th host computer group with the (i)th logical volume group;

permitting each of said one or more host computers assigned to the (i)th host computer group to access each logical volume comprising said (i)th logical volume group;

LAW OFFICE OF
DALE F. REGELMAN, P.C.
1231 S. Fremont Street
Tucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

wherein each of said plurality of host computers assigned to (i)th host computer group is not assigned to any other of the (N) host computer groups, and wherein each of said logical volumes assigned to the (i)th logical volume group is not assigned to any other of the (N) logical volume groups.

12. (original) The article of manufacture of claim 11, wherein one or more of said (N) host computer groups are owned by a first person, and wherein one or more of said (N) host computer groups are owned by a second person, wherein said first person differs from said second person.

13. (original) The article of manufacture of claim 11, wherein a storage area network is capable of communicating with each of said plurality of host computers, said computer readable program code further comprising a series of computer readable program steps to effect receiving information from said storage area network.

14. (original) The article of manufacture of claim 11, said computer readable program code further comprising a series of computer readable program steps to effect:

forming a plurality of unique identifiers;

assigning a different one of said plurality of unique identifiers to each of said plurality of host computers;

associating in said database each of said plurality of unique identifiers with one of said (N) host computer groups.

15. (original) The article of manufacture of claim 14, said computer readable program code further comprising a series of computer readable program steps to effect:

receiving from one of said plurality of host computers a request to access a designated

LAW OFFICE OF
DALE F. REGELMAN, P.C.
1231 S. Fremont Street
Tucson, Arizona 85714

TEL 520-741-7638
FAX 520-746-9114

logical volume;

determining that said requesting host is assigned to the (j)th host computer group, wherein (j) is greater than or equal to 1 and less than or equal to (N);

determining if said designated logical volume is assigned to the (j)th logical volume group;

operative if said designated logical volume is assigned to the (j)th logical volume group, permitting said requesting host to access said designated volume;

operative if said designated logical volume is not assigned to the (j)th logical volume group, denying said requesting host access to said designated volume.

16. (original) The article of manufacture of claim 15, said computer readable program code further comprising a series of computer readable program steps to effect:

establishing the unique identifiers assigned to said requesting host computer;

determining using said database and said unique identifiers that the requesting host computer is assigned to the (j)th logical volume group.

17. (original) The article of manufacture of 11, said computer readable program code further comprising a series of computer readable program steps to effect:

receiving a request to assign one or more host computers to the (k)th logical volume group, wherein (k) is greater than or equal to 1 and less than or equal to (N);

assigning said one or more host computers to the (k)th logical volume group.

18. (original) The article of manufacture of claim 11, said computer readable program code further comprising a series of computer readable program steps to effect:

receiving a request to unassign one or more host computers from the (k)th logical

LAW OFFICE OF
ALE F. REGELMAN, P.C.
1231 S. Fremont Street
Tucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

volume group, wherein (k) is greater than or equal to 1 and less than or equal to (N);

unassigning said one or more host computers to the (k)th logical volume group.

19. (original) The article of manufacture of claim 11, said computer readable program code further comprising a series of computer readable program steps to effect:

receiving a request to unassign one or more logical volumes from the (k)th logical volume group, wherein (k) is greater than or equal to 1 and less than or equal to (N);

unassigning said one or more logical volumes from the (k)th logical volume group.

20. (original) The article of manufacture of claim 11, said computer readable program code further comprising a series of computer readable program steps to effect:

receiving a request to assign one or more logical volumes to the (k)th logical volume group, wherein (k) is greater than or equal to 1 and less than or equal to (N);

assigning said one or more logical volumes to the (k)th logical volume group;

assigning identifiers to said one or more logical volumes newly-assigned to the (k)th logical volume group.

21. (currently amended) A computer program product usable with a usable with a programmable computer processor having computer readable program code embodied therein to control access to logical volumes disposed in an information storage and retrieval system, wherein said information storage and retrieval system comprises a plurality of logical volumes, and wherein a plurality of host computers is capable of communicating with said information storage and retrieval system, comprising:

computer readable program code which causes said programmable computer processor to form (N) host computer groups, wherein (N) is greater than or equal to 1;

LAW OFFICE OF
ALE F. REGELMAN, P.C.
231 S. Fremont Street
Tucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

computer readable program code which causes said programmable computer processor to assign ~~one or more~~ each of said plurality of host computers to ~~the (i)th host computer group, wherein (i) is greater than or equal to 1 and less than or equal to (N)~~ one of the (N) host computer groups;

computer readable program code which causes said programmable computer processor to form (N) logical volume groups;

computer readable program code which causes said programmable computer processor to assign one or more of said plurality of logical volumes to the (i)th logical volume group;

computer readable program code which causes said programmable computer processor to maintaining a database associating the (i)th host computer group with the (i)th logical volume group;

computer readable program code which causes said programmable computer processor to permit each of said one or more host computers assigned to the (i)th host computer group to access each logical volume comprising said (i)th logical volume group.

22. (original) The computer program product of claim 21 wherein one or more of said (N) host computer groups are owned by a first person, and wherein one or more of said (N) host computer groups are owned by a second person, wherein said first person differs from said second person.

23. (original) The computer program product of claim 21 wherein a storage area network is capable of communicating with each of said plurality of host computers, further comprising computer readable program code which causes said programmable computer processor to receive information from said storage area network.

LAW OFFICE OF
'ALE F. REGELMAN, P.C.
1231 S. Fremont Street
Tucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

24. (original) The computer program product of claim 21, further comprising:

computer readable program code which causes said programmable computer processor to form a plurality of unique identifiers;

computer readable program code which causes said programmable computer processor to assign a different one of said plurality of unique identifiers to each of said plurality of host computers;

computer readable program code which causes said programmable computer processor to associate in said database each of said plurality of unique identifiers with one of said (N) host computer groups.

25. (original) The computer program product of claim 21, further comprising:

computer readable program code which causes said programmable computer processor to receive from one of said plurality of host computers a request to access a designated logical volume;

computer readable program code which causes said programmable computer processor to determine that said requesting host is assigned to the (j)th host computer group, wherein (j) is greater than or equal to 1 and less than or equal to (N);

computer readable program code which causes said programmable computer processor to determine if said designated logical volume is assigned to the (j)th logical volume group;

computer readable program code which, if said designated logical volume is assigned to the (j)th logical volume group, causes said programmable computer processor to permit said requesting host to access said designated volume;

computer readable program code which, if said designated logical volume is not

LAW OFFICE OF
ALE F. REGELMAN, P.C.
231 S. Fremont Street
ucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

assigned to the (j)th logical volume group, causes said programmable computer processor to deny said requesting host access to said designated volume.

26. (original) The computer program product of claim 25, further comprising:

computer readable program code which causes said programmable computer processor to establish the unique identifier assigned to said requesting host computer;

computer readable program code which causes said programmable computer processor to determine using database and said unique identifier that the requesting host computer is assigned to the (j)th logical volume group.

LAW OFFICE OF
IALE F. REGELMAN, P.C.
1231 S. Fremont Street
Tucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

REMARKS

Claims 1-26 are pending in this application. Applicants have amended their claims herein to more clearly define their invention.

Claims 1, 11, and 21, are amended herein to recite assigning each of the plurality of host computers to one of the (N) host computer groups. The Specification expressly reads, in pertinent part, "[i]n step 350, Applicants' method assigns each host computer capable of communicating with the information storage and retrieval system to one of the (N) host computer groups." *See*, Specification on Page 16 at Lines 11-13. Support can also be found in FIG. 3 at step 350.

No new matter has been entered. Reexamination and reconsideration of the application, as amended, is respectfully requested.

Claims 1-26 stand rejected under 35 USC 102(e) as being anticipated by Burton et al. (US Pat. No. 6,633,962).

Burton et al. teach a system wherein a plurality of host computers are interconnected with a plurality of storage controllers. Col. 1 at Lines 1 through 13, and FIG. 1. The storage controllers control access to a storage device. Col. 1 at Lines 15-16. Burton et al. further teach configuring zero or more hosts in a cluster group, such that "[i]f a logical disk is assigned to a cluster group, then only those hosts also assigned to the cluster group can access such logical disk." Col. 1 at Lines 60-62. Burton et al. further teach that "[a]ny logical disk can be in zero or one cluster group and a host can be in zero or more cluster groups." Col. 1 at Lines 64-66.

Burton et al. teach a storage system wherein a host computer can be configured in no cluster groups, or in one cluster group, or in more than one cluster group. Burton et al.

LAW OFFICE OF
'ALE F. REGELMAN, P.C.
1231 S. Fremont Street
Tucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

nowhere teach or suggest a storage system wherein each host computer is assigned to one of (N) host computer groups, as recited by Applicants' claims 1, 11, and 21, as amended herein. Furthermore, Burton et al. nowhere teach or suggest a storage system wherein each of the host computers assigned to (i)th host computer group is not assigned to any other of the (N) host computer groups, wherein (i) is greater than or equal to 1 and less than or equal to (N), as recited in Applicants' claims 1, 11, and 21, as amended herein.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed.Cir. 1987); MPEP 2131. Moreover, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed.Cir. 1989).

Applicants respectfully submit that Burton et al. does not anticipate claims 1, 11, or 21, because Burton et al. fail to teach a method to control access to logical volumes disposed in an information storage and retrieval system, wherein that method forms (N) host computer groups and (N) logical volume groups, wherein (N) is greater than or equal to 1, and wherein each host computer is assigned to one of (N) host computer groups as recited in Applicants' claims 1, 11, and 21, as amended herein.. Applicants respectfully further submit that Burton et al. does not anticipate claims 1, 11, or 21, because Burton et al. fail to teach a method to control access to logical volumes disposed in an information storage and retrieval system, wherein that method forms (N) host computer groups and (N) logical volume groups, wherein (N) is greater than or equal to 1, and wherein each of the host computers assigned to (i)th host computer group is not

LAW OFFICE OF
ALE F. REGELMAN, P.C.
231 S. Fremont Street
ucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

assigned to any other of the (N) host computer groups, as recited in Applicants' claims 1, 11, and 21, as amended herein.

Claims 2 through 10, depend, directly or indirectly, from claim 1. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." For the reasons set forth above, Applicants respectfully submit that Burton et al. fail to teach all the elements of Applicants' claim 1, as amended herein. This being the case, Applicants respectfully submit that claims 2 through 10, as amended herein, are not anticipated by Burton et al..

Claims 12 through 20, depend, directly or indirectly, from claim 11. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." For the reasons set forth above, Applicants respectfully submit that Burton et al. fail to teach all the elements of Applicants' claim 11. This being the case, Applicants respectfully submit that claims 12 through 20 are not anticipated by Burton et al..

Claims 22 through 26, depend, directly or indirectly, from claim 21. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." For the reasons set forth above, Applicants respectfully submit that Burton et al. fail to teach all the elements of Applicants' claim 21. This being the case, Applicants respectfully submit that claims 22 through 26 are not anticipated by Burton et al..

Having dealt with all of the outstanding objections and/or rejections of the claims, Applicants submit that the application as amended is in condition for allowance, and an

LAW OFFICE OF
ALE F. REGELMAN, P.C.
231 S. Fremont Street
ucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

allowance at an early date is respectfully solicited. In the event there are any fee deficiencies or additional fees are payable, please charge them, or credit an overpayment, to our Deposit Account No. 502262.

Respectfully submitted,

Dale F. Regelman, Ph.D.
Attorney for Applicants
Reg. No. 45,625

CERTIFICATE OF ELECTRONIC FILING

I hereby certify that on this 5th day of September, 2006, that Amendment B is being filed via the Web Enabled Patent Filing System (EFT-WEB).

By: _____

LAW OFFICE OF
DALE F. REGELMAN, P.C.
231 S. Fremont Street
Tucson, Arizona 85714

TEL 520-741-7636
FAX 520-746-9114

Electronic Acknowledgement Receipt

EFS ID:	1186666
Application Number:	10719488
Confirmation Number:	2510
Title of Invention:	Apparatus and method to control access to logical volumes
First Named Inventor:	Ezequiel Cervantes
Customer Number:	49080
Filer:	Dale Regelman/Reena Mendez
Filer Authorized By:	Dale Regelman
Attorney Docket Number:	TUC920030138US1
Receipt Date:	05-SEP-2006
Filing Date:	20-NOV-2003
Time Stamp:	20:02:00
Application Type:	Utility
International Application Number:	

Payment information:

Submitted with Payment	yes
Payment was successfully received in RAM	$ 1200
RAM confirmation Number	862
Deposit Account	090449
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 and 1.17	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part	Pages
1		TUC920030138US1_AmendmentB.pdf	931063	yes	15
	Multipart Description				
	Doc Desc		Start	End	
	Amendment - After Non-Final Rejection		1	11	
	Applicant Arguments/Remarks Made in an Amendment		12	15	
Warnings:					
Information:					
2	Fee Worksheet (PTO-875)	fee-info.pdf	8159	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	939222		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

Electronic Patent Application Fee Transmittal

Application Number:	10719488
Filing Date:	20-Nov-2003
Title of Invention:	Apparatus and method to control access to logical volumes
First Named Inventor:	Ezequiel Cervantes
Filer:	Dale Regelman/Reena Mendez
Attorney Docket Number:	TUC920030138US1

Filed as Large Entity

Utility Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Independent claims in excess of 3	1201	6	200	1200
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Adjustment date: 12/04/2006 SFELEKE1 10719488
09/06/2006 INTERSW 00000862 090449
01 FC:1201 1200.00 CR

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
			Total in USD ($)	1200